

Please amend the paragraph beginning on page 4, line 15, as follows:

A2 In another embodiment, disclosed is a method of fabricating a vertical MIMCap, comprising providing a wafer having a workpiece, depositing an inter-level dielectric over the workpiece, and patterning the inter-level dielectric with a plurality of trenches. The inter-level dielectric comprises at least one first region and at least one second region, the first region comprising trenches for at least one MIMCap. The second region comprises trenches for a plurality of conductive lines. The method includes depositing a conductive liner over the inter-level dielectric within the trenches, depositing a seed layer over the conductive liner, and depositing a resist over the seed layer. The resist is removed over the seed layer in the inter-level dielectric second regions, leaving resist over the seed layer in the inter-level dielectric first regions. A first conductive material is deposited within the inter-level dielectric second region trenches to form a plurality of conductive lines, and the resist is removed. A MIMCap dielectric is deposited over the inter-level dielectric first region within the first region trenches, and a second conductive material is deposited over the MIMCap dielectric within the first region trenches to form a MIMCap top plate.

Please amend the paragraph beginning on page 7, line 7, as follows:

A3 A first conductive layer is disposed over the insulating layer 14. The first conductive layer includes a conductive liner 16 and a seed layer 18.

Please amend the paragraph beginning on page 8, line 32, as follows:

A4 The resist 20 is removed, and a thin dielectric layer 26 is disposed over the wafer 10, covering the second conductive material 24 in the second regions 17, and also covering exposed portions of the seed layer 18 in first regions 19, as shown in Figure 5. The thin dielectric layer 26 is preferably conformal and comprises a thickness in a range of between approximately 10 nm to 200 nm, as an example. Preferably, the dielectric material 26 comprises silicon nitride, Ta₂O₅, or combinations thereof, deposited by plasma enhanced chemical vapor deposition (PECVD). Alternatively, the thin dielectric layer 26 may comprise other dielectric materials such as SiC, saline oxide, tetraethoxysilane (TEOS), silicon dioxide, silicon nitride, silicon oxynitride, barium

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strontium titanate (BST) or other insulators, as examples. Preferably, the thin dielectric layer 26 is relatively thin, e.g., 10 nm to 200 nm thick, and is conformal. Thin dielectric layer 26 functions as a capacitor dielectric 26 of MIMCap's in region 19, e.g., thin dielectric layer 26 comprises the capacitor dielectric between the vertical/horizontal MIMCap plates comprised of conductive liner 16/seed layer 18, e.g., the first conductive layer, and a third conductive material 28.

Please amend the paragraph beginning on page 9, line 22, as follows:

The third conductive material 28 is deposited over the wafer 10, as shown in Figure 5.

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The third conductive material 28 is deposited over the thin dielectric layer 26 to fill the trenches 15 in the first region 19 of the wafer 10. The third conductive material 28 comprises the top plate of vertical MIMCap's in region 19. The third conductive material 28 preferably comprises W, TiN, Al, Ta, Ti, TaN, TiW, Cu, Si, or combinations thereof deposited by PVD or CVD, as examples. The third conductive material may comprise any conducting material such as a metal, and preferably comprises CVD W or CVD Al. Alternatively, the third conductive material 28 may be formed by plating, for example.

In the Claims:

Please amend Claims 1 and 12 as follows:

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1. (Amended) A method of fabricating a vertical metal-insulator-metal capacitor (MIMCap), comprising:

providing a wafer having a workpiece;

depositing an insulating layer over the workpiece;

patterning the insulating layer with a plurality of trenches, the insulating layer comprising at least one first region and at least one second region, the first region comprising trenches for at least one MIMCap;

depositing a first conductive layer over the insulating layer within the trenches;